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EXAMINER	
MADDEN, GREGORY VINCENT	
ART UNIT	**PAPER NUMBER**
2622	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/603,788	SADOVSKY ET AL.	
	Examiner	Art Unit	
	Gregory V. Madden	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1, 12, 20, 29, and 35 have been considered but are moot in view of the new ground(s) of rejection.

First, in regard to claim 1, Applicant has amended the claim to include the limitation "automatically determining adjustments, without prompting a user, for optimizing the image capturing device based on the comparison" (amended content emphasized). Applicant contends that the Walker reference fails to teach that adjustments for optimizing the image capturing device are made automatically without prompting the user. As stated in the telephonic interview of December 13, 2006, the Examiner believes that Walker teaches the automatic determination of adjustments for optimizing the image capturing device (i.e. a default adjustment by the camera in the event that the user fails to answer an output question, as taught in Para. [0471]), but the Examiner agrees that Walker fails to explicitly teach that such an automatic determination of adjustments is made without prompting the user. However, the Applicant's arguments on this ground are considered moot in view of a new ground of rejection. As will be discussed in more detail below, the Examiner believes that the combination of Walker et al. (U.S. Pub. 2004/0174434) in view of Bolle et al. (U.S. Pat. 6,301,440) teaches the limitations of newly-amended claim 1. Specifically, the Bolle reference discloses a method optimizing an image capturing device (digital camera, video camera, etc.) by collecting data related to a captured image (a "temporary image") from an image capturing device, comparing the collected data to previously stored data (in photographic expert unit 104), and either prompting the user to set determined adjustments for optimizing the image capturing device based on the comparison (i.e. "guided mode"), *or* automatically determining adjustments, without prompting a user, for optimizing the image capturing device based on the comparison (i.e. "fully automatic mode"). Again, please refer to the rejection of claim 1 below.

Regarding claims 12, 20, 29, and 35, the Applicant has similarly amended these claims to show that the adjustments are automatically determined, without prompting a user, as is shown above with respect to claim 1. As such, the arguments pertaining to newly-amended claims 12, 20, 29, and 35 are also considered moot in view of a new ground of rejection (Walker in view of Bolle), as will be set forth below.

As for claim 41, again the Applicant has amended the claims to specify a method "...for analyzing a captured multimedia object which comprises, in part, *automatically* determining one or more adjustments to optimize a multimedia captured device *without prompting a user*" (see Remarks, Pg. 15). Again, the Applicants arguments are considered moot in view of a new ground of rejection (Walker in view of Kiyokawa, further in view of Bolle), which will be set forth below.

Finally, regarding dependent claims 2-11, 13-19, 21-28, 30-34, 36-40, and 42, these claims are also rejected in view of the new ground of rejection (as discussed above).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. (U.S. Pub. 2004/0174434) in view of Bolle et al. (U.S. Pat. 6,301,440).

First, considering **claim 1**, the Walker reference teaches a method for optimizing an image capturing device (camera 130) in order to improve image quality, the method comprising collecting data related to a captured image from the image capturing device (130) and storing the data externally (in

server 110) from the image capturing device, comparing the collected data to previously stored data ("template" images stored in memory of server 110), and determining adjustments for optimizing the image capturing device based on the comparison. Please refer to Figs. 1-4, Paras. [0023-0058], and Paras. [0318-0333]. Walker also teaches that the adjustments for optimizing the image capturing device can be automatically made when the user does not reply to a posed question, as shown in Para. [0471]. What Walker does not explicitly teach, however, is that the adjustments for optimizing the image capturing device are made automatically without prompting a user. However, the Bolle reference teaches a method of optimizing an image capturing device (camera) in order to improve image quality by collecting data related to a captured image (a "temporary image") from an image capturing device, comparing the collected data to previously stored data (in photographic expert unit 104), and either prompting the user to set determined adjustments for optimizing the image capturing device based on the comparison (i.e. "guided mode"), *or* automatically determining adjustments, without prompting a user, for optimizing the image capturing device based on the comparison (i.e. "fully automatic mode"). Please refer to Fig. 1, Col. 2, Lines 14-44, Col. 2, Line 62 – Col. 3, Line 21, and Col. 6, Lines 23-67. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the automatic determination of adjustments without the prompting of a user, as taught by Bolle, with the method for optimizing an image capturing device disclosed by Walker. One would have been motivated to do so because, as taught by Bolle in Col. 1, Line 14 – Col. 2, Line 10, a novice user of the image capturing device is often overwhelmed by the various camera settings and adjustments available to them, and thus an automatic determination of adjustments enables the user to capture an expert-quality image without having to make manual adjustments that may adversely alter the captured image.

As for **claim 2**, the limitations of claim 1 are taught above, and the Walker reference further discloses that the determined adjustments are forwarded to a user interface (output devices 540) for user evaluation. See Para. [0089], Paras. [0466-0470], and Paras. [0484-0486].

In regard to **claim 3**, again the limitations of claim 1 are taught above, and Walker also teaches that the adjustments to the image-capturing device (130) are automatically made in Para. [0471]. Also, Bolle teaches that the adjustments are automatically made in Col. 2, Lines 14-44, Col. 2, Line 62 – Col. 3, Line 21, and Col. 6, Lines 23-67.

Regarding **claim 4**, Walker teaches the limitations of claim 1, and the Walker reference further discloses that the comparing of data to previously stored data (template images) comprises performing metadata analysis, as is taught in Fig. 8 and Paras. [0117-0119].

Next, in regard to **claim 5**, the limitations of claim 1 are taught above, and Walker also teaches that comparing the data to previously stored data comprises performing pattern analysis (e.g. indoors or lighting patterns), as disclosed in Paras. [0319-0333].

Considering **claim 6**, again the limitations of claim 1 are taught above, and Walker further discloses that comparing the data to previously stored data comprises performing device setting analysis, as taught in Para. [0105-0112].

As for **claim 7**, Walker in view of Bolle teaches the limitations of claim 1, and the Walker reference also discloses that help topics (e.g. describing a potential adjustment to a setting) are presented to a user interface, as described in Para. [0569]. The Bolle reference also teaches a "guided mode" that prompts the user to choose a variety of reasonable settings in Col. 2, Lines 14-44.

Regarding **claim 8**, the limitations of claim 1 are taught above, and Fig. 4 and Paras. [0069-0073] of the Walker reference teaches that the method further comprises collecting data through a connectivity layer (processor 405) and making changes to image capturing device settings thought the connectivity layer (based upon the changes made via program 415).

Next, in regard to **claim 9**, the limitations of claim 8 are taught above, and Paras. [0326-0333] further show that the collected data (i.e. captured image data) is sent to an image and context analysis manager (template database) for analysis.

Considering **claim 10**, the limitations of claim 9 are set forth above, and Walker teaches that a real time wireless connection is maintained between the image capture device and the connectivity layer (405) in Para. [0033] and Fig. 1.

As for **claim 11**, the method of claim 1 is set forth above by Walker in view of Bolle, and Walker further discloses a computer-readable medium (memory 410) having computer-executable instructions (program 415) for performing the above method, as is taught in Fig. 4 and Paras. [0070-0071].

In regard to **claim 12**, the Walker reference teaches a system for optimizing an image capturing device (camera 130) in order to improve image quality, the system comprising a data collection apparatus for collecting data related to a captured image from the image capturing device and sending the data to a storage device (in server 110), data analysis tools for comparing the captured data to previously stored data (template images), and optimization tools for optimizing the image capturing device based on the data analysis. Please refer to Figs. 1-4, Paras. [0023-0058], and Paras. [0318-0333]. Walker also teaches that the adjustments for optimizing the image capturing device can be automatically made when the user does not reply to a posed question, as shown in Para. [0471]. What Walker does not explicitly teach, however, is that the adjustments for optimizing the image capturing device are made automatically without prompting a user. However, the Bolle reference teaches a system of optimizing an image capturing device (camera) in order to improve image quality by collecting data related to a captured image (a "temporary image") from an image capturing device, comparing the collected data to previously stored data (in photographic expert unit 104), and either prompting the user to set determined adjustments for optimizing the image capturing device based on the comparison (i.e. "guided mode"), *or* automatically determining adjustments, without prompting a user, for optimizing the image capturing device based on the comparison (i.e. "fully automatic mode"). Please refer to Fig. 1, Col. 2, Lines 14-44, Col. 2, Line 62 – Col. 3, Line 21, and Col. 6, Lines 23-67. It would have been obvious to one of ordinary skill in the art

at the time the invention was made to have incorporated the automatic determination of adjustments without the prompting of a user, as taught by Bolle, with the system for optimizing an image capturing device disclosed by Walker. One would have been motivated to do so because, as taught by Bolle in Col. 1, Line 14 – Col. 2, Line 10, a novice user of the image capturing device is often overwhelmed by the various camera settings and adjustments available to them, and thus an automatic determination of adjustments enables the user to capture an expert-quality image without having to make manual adjustments that may adversely alter the captured image.

Considering **claim 13**, the limitations of claim 12 are taught above, and Walker further discloses that the data collection apparatus comprises a connectivity layer (processor 405) operable for sending image-related data to the data analysis tools, as is taught in Fig. 4 and Paras. [0069-0073].

As for **claim 14**, again the limitations of claim 12 are taught above, and Walker teaches that the data analysis tools comprise and image and context analysis manager (template databases), as is taught in Paras. [0326-0333].

Regarding **claim 15**, the limitations of claim 14 are taught by Walker in view of Bolle above, and Walker discloses that the image and context analysis manager comprises a plurality of filters (plurality of databases in memory 410) for processing and analyzing different types of image-related data, as shown in Fig. 4 and Para. [0075].

In regard to **claim 16**, the limitations of claim 15 are taught above, and Walker teaches that the filters comprise an image analysis filter (image database 425), a device settings and context analysis filter (settings database 420), and a usage and pattern analysis filter (event log 450). Please refer again to Fig. 4 and Para. [0075].

Next, considering **claim 17**, Walker in view of Bolle teaches the limitations of claim 12, and Walker further teaches that the optimization tools comprise a user interface (output devices 540) for providing instructions and recommendations to the user for improving image quality. See Para. [0089],

Paras. [0466-0470], and Paras. [0484-0486]. The Bolle reference also teaches a "guided mode" that prompts the user to choose a variety of reasonable settings in Col. 2, Lines 14-44.

As for **claim 18**, again the limitations of claim 12 are taught above, and the Walker reference teaches that the optimization tools comprise core services and a connectivity layer (405) for sending adjustments directly to the image capturing device, as taught in Para. [0471].

In regard to **claim 19**, while the Walker reference does teach that usage statistics are saved in the memory (via event log 450 in Fig. 4), Walker is silent with regard to the system comprising a data aggregating and uploading manager for facilitating maintenance of usage statistics. However, Official Notice is hereby taken that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included such a data aggregating and uploading manager with the system of Walker. One would have been motivated to do so because by facilitating the maintenance of usage statistics, the server can more effectively provide assistance or adjustments to the image-capturing device based on repeated characteristics of image capture made by a particular user. Thus, the system is using not only previously stored images, but also previous settings, etc., to guide the user.

Considering **claim 20**, Walker discloses a method for analyzing captured images, the method comprising collecting data related to a newly captured image from the image capturing device (130), wherein the data includes image quality data and context data, comparing the collected data to previously stored data ("template" images stored in memory of server 110) to determine a deviation from ideal image quality data and comparing context data for the newly captured image to stored context data, and determining adjustments for optimizing the image capturing device to improve image quality based on the comparison. Please refer to Figs. 1-4, Paras. [0023-0058], and Paras. [0318-0333]. Walker also teaches that the adjustments for optimizing the image capturing device can be automatically made when the user does not reply to a posed question, as shown in Para. [0471]. What Walker does not explicitly teach,

however, is that the adjustments for optimizing the image capturing device are made automatically without prompting a user. However, the Bolle reference teaches a method of optimizing an image capturing device (camera) in order to improve image quality by collecting data related to a captured image (a "temporary image") from an image capturing device, comparing the collected data to previously stored data (in photographic expert unit 104), and either prompting the user to set determined adjustments for optimizing the image capturing device based on the comparison (i.e. "guided mode"), *or* automatically determining adjustments, without prompting a user, for optimizing the image capturing device based on the comparison (i.e. "fully automatic mode"). Please refer to Fig. 1, Col. 2, Lines 14-44, Col. 2, Line 62 – Col. 3, Line 21, and Col. 6, Lines 23-67. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the automatic determination of adjustments without the prompting of a user, as taught by Bolle, with the method for optimizing an image capturing device disclosed by Walker. One would have been motivated to do so because, as taught by Bolle in Col. 1, Line 14 – Col. 2, Line 10, a novice user of the image capturing device is often overwhelmed by the various camera settings and adjustments available to them, and thus an automatic determination of adjustments enables the user to capture an expert-quality image without having to make manual adjustments that may adversely alter the captured image.

In regard to **claim 21**, the limitations of claim 20 are taught above, and again the Walker reference teaches that the determined adjustments are forwarded to a user interface (output devices 540) for user evaluation. See Para. [0089], Paras. [0466-0470], and Paras. [0484-0486]. The Bolle reference also teaches a "guided mode" that prompts the user to choose a variety of reasonable settings in Col. 2, Lines 14-44.

As for **claim 22**, Walker in view of Bolle discloses the limitations of claim 20 above, the Walker reference again shows that the adjustments to the image capturing device can be made automatically, as

taught in Para. [0471]. Also, Bolle teaches that the adjustments are automatically made in Col. 2, Lines 14-44, Col. 2, Line 62 – Col. 3, Line 21, and Col. 6, Lines 23-67.

Regarding **claim 23**, again the limitations of claim 20 are taught above, and Walker also teaches that comparing the context data to previously stored context data (in databases) comprises performing device setting analysis (via settings database 420), as shown in Fig. 4 and Para. [0075].

As for **claim 24**, Walker in view of Bolle teaches the limitations of claim 20 above, and the method further comprises presenting help topics to a user interface (via questions presented to the user on the camera LCD), an example of which is disclosed in Paras. [0126-0201] of the Walker reference. The Bolle reference also teaches a "guided mode" that prompts the user to choose a variety of reasonable settings in Col. 2, Lines 14-44.

Considering **claim 25**, the limitations of claim 20 are taught above, and Fig. 4 and Paras. [0069-0073] of the Walker reference teaches that the method further comprises collecting data through a connectivity layer (processor 405) and making changes to image capturing device settings thought the connectivity layer (based upon the changes made via program 415).

In regard to **claim 26**, the Walker in view of Bolle combination teaches the limitations of claim 25 above, and Walker further teaches that the method further comprises sending the collected data (i.e. captured image data) to an image and context analysis manager (template database) for analysis. Please refer to Paras. [0326-0333].

As for **claim 27**, the limitations of claim 26 are set forth above, and Walker discloses that a real time wireless connection is maintained between the image capture device and the connectivity layer (405) in Para. [0033] and Fig. 1.

Considering **claim 28**, the method of claim 20 is taught above, and Walker further discloses a computer-readable medium (memory 410) having computer-executable instructions (program 415) for performing the above method, as is taught in Fig. 4 and Paras. [0070-0071].

Next, regarding **claim 29**, the Walker reference discloses a system for optimizing an image capturing device in order to improve image quality, the system comprising a data collection apparatus for collecting data related to a captured image from the image capturing device and sending the data to a storage device (in server 110), image data analysis tools for comparing the captured data to previously stored data (template images), device and context analysis tools (settings database) for comparing current context data with stored context data and for sending the context data to the storage device, and optimization tools for optimizing the image capturing device based on the data analysis. Please refer to Figs. 1-4, Paras. [0023-0058], and Paras. [0318-0333]. Walker also teaches that the adjustments for optimizing the image capturing device can be automatically made when the user does not reply to a posed question, as shown in Para. [0471]. What Walker does not explicitly teach, however, is that the adjustments for optimizing the image capturing device are made automatically without prompting a user. However, the Bolle reference teaches a system of optimizing an image capturing device (camera) in order to improve image quality by collecting data related to a captured image (a "temporary image") from an image capturing device, comparing the collected data to previously stored data (in photographic expert unit 104), and either prompting the user to set determined adjustments for optimizing the image capturing device based on the comparison (i.e. "guided mode"), *or* automatically determining adjustments, without prompting a user, for optimizing the image capturing device based on the comparison (i.e. "fully automatic mode"). Please refer to Fig. 1, Col. 2, Lines 14-44, Col. 2, Line 62 – Col. 3, Line 21, and Col. 6, Lines 23-67. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the automatic determination of adjustments without the prompting of a user, as taught by Bolle, with the system for optimizing an image capturing device disclosed by Walker. One would have been motivated to do so because, as taught by Bolle in Col. 1, Line 14 – Col. 2, Line 10, a novice user of the image capturing device is often overwhelmed by the various camera settings and

adjustments available to them, and thus an automatic determination of adjustments enables the user to capture an expert-quality image without having to make manual adjustments that may adversely alter the captured image.

In regard to **claim 30**, the limitations of claim 29 are taught above, and Walker further teaches that the data collection apparatus comprises a connectivity layer (processor 405) operable for sending image-related data to the image data analysis tools and context data to the device and context analysis tools, as is taught in Fig. 4 and Paras. [0069-0073].

Considering **claim 31**, again the limitations of claim 29 are taught above, and Walker teaches that the system further comprises a usage and pattern analysis filter (event log 450). Please refer again to Fig. 4 and Para. [0075].

As for **claim 32**, Walker teaches the limitations of claim 29, and the Walker reference further discloses that the optimization tools comprise a user interface (output devices 540) for providing instructions and recommendations to the user for improving image quality. See Para. [0089], Paras. [0466-0470], and Paras. [0484-0486]. The Bolle reference also teaches a "guided mode" that prompts the user to choose a variety of reasonable settings in Col. 2, Lines 14-44.

Regarding **claim 33**, again the limitations of claim 29 are taught above, and the Walker reference teaches that the optimization tools comprise core services and a connectivity layer (405) for sending adjustments directly to the image capturing device, as taught in Para. [0471].

In regard to **claim 34**, while the Walker reference does teach that usage statistics are saved in the memory (via event log 450 in Fig. 4), Walker is silent with regard to the system comprising a data aggregating and uploading manager for facilitating maintenance of usage statistics. However, Official Notice is hereby taken that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included such a data aggregating and uploading manager with the system of Walker. One would have been motivated to do so because by facilitating the maintenance of usage

statistics, the server can more effectively provide assistance or adjustments to the image-capturing device based on repeated characteristics of image capture made by a particular user. Thus, the system is using not only previously stored images, but also previous settings, etc., to guide the user.

Next, in regard to **claim 35**, the Walker reference discloses a system for improving the quality of images captured by an image capturing device, the system comprising image analysis filters (image database 425) for deducing image metadata (as shown in Fig. 8) from collected image bits and for recording the image metadata, device settings and context analysis filters (settings database 420) for analyzing device settings and contexts during image capture, and means for determining appropriate corrective measures based on the deduced image metadata, device settings and context analysis, and historical data. Please refer to Figs. 1-4, Paras. [0023-0058], and Paras. [0318-0333]. Walker also teaches that the adjustments for optimizing the image capturing device can be automatically made when the user does not reply to a posed question, as shown in Para. [0471]. What Walker does not explicitly teach, however, is that the adjustments for optimizing the image capturing device are made automatically without prompting a user. However, the Bolle reference teaches a system of optimizing an image capturing device (camera) in order to improve image quality by collecting data related to a captured image (a "temporary image") from an image capturing device, comparing the collected data to previously stored data (in photographic expert unit 104), and either prompting the user to set determined adjustments for optimizing the image capturing device based on the comparison (i.e. "guided mode"), *or* automatically determining adjustments, without prompting a user, for optimizing the image capturing device based on the comparison (i.e. "fully automatic mode"). Please refer to Fig. 1, Col. 2, Lines 14-44, Col. 2, Line 62 – Col. 3, Line 21, and Col. 6, Lines 23-67. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the automatic determination of adjustments without the prompting of a user, as taught by Bolle, with the system for optimizing an image capturing

device disclosed by Walker. One would have been motivated to do so because, as taught by Bolle in Col. 1, Line 14 – Col. 2, Line 10, a novice user of the image capturing device is often overwhelmed by the various camera settings and adjustments available to them, and thus an automatic determination of adjustments enables the user to capture an expert-quality image without having to make manual adjustments that may adversely alter the captured image.

Considering **claim 36**, the limitations of claim 35 are taught above, and Walker further teaches the data collection apparatus comprises a connectivity layer (processor 405) operable for sending image-related data to the image analysis filters and the device setting and session context analysis filters, as is taught in Fig. 4 and Paras. [0069-0073].

As for **claim 37**, again the limitations of claim 35 are taught above, and Walker discloses that the system further comprises a usage and pattern analysis filter (event log 450). Please refer again to Fig. 4 and Para. [0075].

As for **claim 38**, Walker in view of Bolle teaches the limitations of claim 35, and the Walker reference further discloses that the means for determining appropriate corrective measures comprise a user interface (output devices 540) for providing instructions and recommendations to the user for improving image quality. See Para. [0089], Paras. [0466-0470], and Paras. [0484-0486].

Regarding **claim 39**, again the limitations of claim 35 are taught above, and the Walker reference teaches that the means for determining appropriate corrective measures comprise core services and a connectivity layer (405) for sending adjustments directly to the image capturing device, as taught in Para. [0471].

In regard to **claim 40**, while the Walker reference does teach that usage statistics are saved in the memory (via event log 450 in Fig. 4), Walker is silent with regard to the system comprising a data aggregating and uploading manager for facilitating maintenance of usage statistics. However, Official Notice is hereby taken that it would have been obvious to one of ordinary skill in the art at the time the

invention was made to have included such a data aggregating and uploading manager with the system of Walker. One would have been motivated to do so because by facilitating the maintenance of usage statistics, the server can more effectively provide assistance or adjustments to the image-capturing device based on repeated characteristics of image capture made by a particular user. Thus, the system is using not only previously stored images, but also previous settings, etc., to guide the user.

Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. (U.S. Pub. 2004/0174434) in view of Bolle et al. (U.S. Pat. 6,301,440), further in view of Kiyokawa (U.S. Pat. 6,636,260).

Next, regarding **claim 41**, the Walker reference teaches a method for analyzing a method for optimizing an image capturing device (camera 130) in order to improve image quality, the method comprising collecting data related to a captured image from the image capturing device (130) and storing the data externally (in server 110) from the image capturing device, comparing the collected data to previously stored data ("template" images stored in memory of server 110), and determining adjustments for optimizing the image capturing device based on the comparison (Please refer to Figs. 1-4, Paras. [0023-0058], and Paras. [0318-0333]). Walker also teaches that the adjustments for optimizing the image capturing device can be automatically made when the user does not reply to a posed question, as shown in Para. [0471]. What Walker does not explicitly teach, however, is that the adjustments for optimizing the image capturing device are made automatically without prompting a user, and further that the method involves a multimedia object (e.g. a video or audio object). However, the Bolle reference teaches a method of optimizing an image capturing device (camera) in order to improve image quality by collecting data related to a captured image (a "temporary image") from an image capturing device, comparing the collected data to previously stored data (in photographic expert unit 104), and either prompting the user to set determined adjustments for optimizing the image capturing device based on the comparison (i.e.

"guided mode"), *or* automatically determining adjustments, without prompting a user, for optimizing the image capturing device based on the comparison (i.e. "fully automatic mode"). Please refer to Fig. 1, Col. 2, Lines 14-44, Col. 2, Line 62 – Col. 3, Line 21, and Col. 6, Lines 23-67. Further, referring to the Kiyokawa reference, Kiyokawa teaches a digital video camera (11) wherein multimedia objects (video objects) are captured and compared with quality data (in this case, color matching data) of previously stored multimedia data (stored in external storage 14), wherein adjustments to the data are made based on the comparison (See Col. 3, Line 65 – Col. 4, Line 47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the automatic determination of adjustments without the prompting of a user, as taught by Bolle, as well as the multimedia data comparison of Kiyokawa, with the method for optimizing an image capturing device disclosed by Walker. One would have been motivated to do so because, as taught by Bolle in Col. 1, Line 14 – Col. 2, Line 10, a novice user of the image capturing device is often overwhelmed by the various camera settings and adjustments available to them, and thus an automatic determination of adjustments enables the user to capture an expert-quality image without having to make manual adjustments that may adversely alter the captured image. Also, regarding the capture of multimedia objects, cameras that capture both moving and still images can be optimized based on previously captured data, as opposed to analyzing and correcting (or recommending correction) still image data but not analyzing motion image data. The user will thus obtain both expert-quality still and moving images.

Finally, in regard to **claim 42**, the limitations of claim 41 are set forth above, and the Kiyokawa reference further discloses that the captured multimedia object comprises a video object in Col. 4, Lines 6-13.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory V. Madden whose telephone number is 571-272-8128. The examiner can normally be reached on Mon.-Fri. 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc Yen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gregory Madden
March 7, 2007

NGOC-YEN VU
SUPERVISORY PATENT EXAMINER